

What is claimed is:

1. A video tape recorder capable of performing signal recording and reproducing processes at a plurality of different frame rates, comprising:
5 means for recording an input image signal at a selected recording frame rate; and
means for recording a first time code stepped in a non-drop frame format and a second time code stepped in a drop frame format together with the selected recording frame rate.
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2. The video tape recorder of claim 1, wherein the input image signal is recorded as a component digital image signal on a recording medium, and the time code stepped in the non-drop frame format, the time code stepped in the drop frame format, and the recording frame rate are each
15 respectively recorded in an auxiliary area of a signal recording area on the recording medium.
3. The video tape recorder of claim 2, wherein the signal recording area of the recording medium is a video recording area.
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4. The video tape recorder of claim 2, wherein the signal recording area of the recording medium is a audio recording area.
5. The video tape recorder of claim 1, wherein 59.94 Hz and 60
25 Hz are used as the recording frame rates.
6. A recording apparatus for recording video signals at one of a

plurality of frame rates on a recording medium, comprising:

a control circuit including:

a frame rate selection circuit for selecting a frame rate from the plurality of frame rates;

5 a counting method selection circuit for selecting a time code counting method from a plurality of time code counting methods;

a first signal generation circuit for outputting a first controlling signal indicating the selected frame rate; and

10 a second signal generation circuit for outputting a second controlling signal indicating the selected time code counting method;

a time code generator circuit for generating a plurality of time code counts, one for each of the plurality of time code counting methods;

15 a recording processing circuit including:

a first recording circuit for recording the video signals on the recording medium at the selected frame rate in response to the first controlling signal from the control circuit;

20 a second recording circuit for recording the plurality of time code counts from the time code generator circuit on the recording medium; and

a third recording circuit for recording data indicating the selected frame rate on the recording medium; and

25 a time code method selection and recording circuit for selecting a time code count from the plurality of time code counts generated by the time code generator circuit, and for recording the selected time code count on the recording medium in response to the second controlling signal from the

control circuit.

7. The recording apparatus of claim 6 wherein the plurality of frame rates include 59.94 Hz and 60 Hz.

5 8. The recording apparatus of claim 6 wherein the plurality of time code counting methods include a first time code counting method of the video signal using drop frame stepping and a second time code counting method of the video signal using non-drop frame stepping.

10 9. The recording apparatus of claim 8, wherein the video signal is recorded as a component digital image signal, and the time code count stepped in the non-drop frame method, the time code count stepped in the drop frame method, and the recording frame rate are respectively recorded in
15 an auxiliary area of a signal recording area of the recording medium.

10. The recording apparatus of claim 9 wherein the auxiliary area is part of a video signal recording area of the recording medium.

20 11. The recording apparatus of claim 9 wherein the auxiliary area is part of a audio signal recording area of the recording medium.

25 12. A recording and/or reproducing apparatus for recording input audio and video signals at a one of a plurality of frame rates on a recording medium and for reproducing audio and video signals recorded on the recording medium at one of the frame rates, comprising:

control means for selecting one of the plurality of different frame

rates,

for selecting a first time code counting method in which drop frame stepping is used or a second time code counting method in which non-drop frame stepping is used, and

5 for outputting a first control signal indicating which time code counting method is selected;

time code generating means for generating a first time code count based on the first time code counting method and a second time code count based on the second time code counting method;

10 recording medium processing means for recording the audio and video signal on the recording medium at the selected frame rate based on the first control signal,

for recording both the first time code count and the second time code count from the time code generating means on the recording medium,

15 for recording data indicating the selected frame rate on the recording medium, and

for reproducing the audio and video signal, as recorded at the selected frame rate, and the first and second time code counts from the recording medium;

20 time code selection means for selecting a time code counting method from among the first time code counting method and the second time code counting method based on the second control signal from the control means;

time code recording means for recording the selected time code count; and

25 time code reproducing means for reproducing the selected time code count recorded on the recording medium.

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13. A video tape recording method for performing signal recording and reproducing processes at a plurality of frame rates, comprising the steps of:

5 separating a plurality of types of time code information and recording frame rate information according to a reproduced signal; and

selecting a playback frame rate for the reproduced signal and a time code for the selected frame rate when reproduced image information is accessed via real-time units and frame number units.

10 ¹³~~14~~. A method of recording video signals at one of a plurality of frame rates on a recording medium, comprising the steps of:

selecting a frame rate from the plurality of frame rates;

selecting a time code counting method from a plurality of time code counting methods;

15 outputting a first controlling signal indicating the selected frame rate;

outputting a second controlling signal indicating the selected time code counting method;

generating a plurality of time code counts, one for each of the plurality of time code counting methods;

20 recording the video signals on the recording medium at the selected frame rate in response to the first controlling signal;

recording the plurality of time code counts on the recording medium;

recording data indicating the selected frame rate on the recording medium;

25 selecting a time code count from the plurality of time code counts; and

recording the selected time code count on the recording medium in

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response to the second controlling signal.